

REMARKS/ARGUMENTS

Applicants have amended claims 1, 6, and 14. Accordingly, claims 1-6, 14, 15, and 17 are presently pending in this application. Claims 8-13, 19, and 20 are withdrawn. Applicants respectfully request further examination and reconsideration of the application in view of the foregoing amendments and the following remarks.

In paragraph 3 of the Official Action mailed December 8, 2004, the Examiner has objected to the amendment filed on June 10, 2004 on the ground that it introduces new matter. The Examiner states in paragraphs 3 and 5 of the Official Action that there is no support in the disclosure for the limitation “the actuator portion having no inlet and outlet openings for flow through the actuator portion” as specified in claims 1 and 14 and paragraphs [0005] and [0006]. Applicant has amended claims 1 and 14 and paragraphs [0005] and [0006], so they are no longer include this limitation. Accordingly, it is submitted that this objection is no longer applicable.

In paragraph 7 of the Official Action mailed December 8, 2004, the Examiner has also objected to the drawings on the ground that they do not show the feature of no inlet and outlet openings for flow through the actuator portion. Applicant has removed this limitation from the claims, so this objection is moot, but for the record, Applicant submits that openings 60, which the Examiner has characterized as inlet openings for flow through the actuator portion, are not inlet and outlet openings at all. As stated in paragraph [0022] of the disclosure, openings 60 are provided to accommodate pin 56 to hold removable closure 54 in place. A person skilled in the art would not consider openings 60 to be inlet and outlet openings, because they have nothing to do with bypass flow of heat exchanger fluid, which is the purpose of the bypass valves of the subject invention. Further, O-ring seal 56 prevents any heat exchange fluid from reaching openings 60, so they could not be inlet and outlet openings, even if this were desirable.

In paragraph 8 of the Official Action mailed December 8, 2004, the Examiner has objected to the specification, again on the ground that new matter has been added in the amendments to paragraphs [0005] and [0006]. New revised paragraphs [0005] and [0006] are submitted herewith where the impugned term “no inlet and outlet openings for flow through the actuator portion” have been removed. This objection, therefore, is no longer applicable.

In paragraph 10 of the Official Action mailed December 8, 2004, the Examiner has rejected claims 1-6, 14, 15, 17 and 18 under 35 U.S.C. 112, first paragraph, on the ground that the limitation “the actuator housing having no inlet and outlet openings for flow through the actuator portion” found in claims 1 and 14 is not supported in the originally filed disclosure for the elected species corresponding to Figures 1 to 4. Again, this limitation has been removed from claims 1 and 14, so this rejection is now moot.

In paragraph 12 of the Official Action mailed December 8, 2004, the Examiner has rejected claims 6, 14, 15, 17 and 18 under 35 U.S.C. 112, second paragraph, as being indefinite due to a lack of antecedent basis for the limitations “said bypass valve inlet and outlet openings”. Applicant has amended claim 6 to delete the limitation “said bypass valve inlet and outlet openings”, so this rejection is no longer applicable to claim 6. Applicant has adopted the Examiner’s suggestion in respect of claim 14 to change “said bypass valve inlet and outlet openings” to “said plug wall inlet and outlet openings”. It is now believed that claims 6, 14, 15, 17 and 18 comply with 35 U.S.C. 112, second paragraph.

In paragraph 14 of the Official Action mailed December 8, 2004, the Examiner has rejected claims 1-6, 14, 15, 17 and 18 under 35 U.S.C. 102(b) as being anticipated by Schaefer. Applicant requests reconsideration and withdrawal of the objection for the following reasons.

In Schaefer, the bypass flow through apertures 19 or 67 acts on the actuator valve 22 or 71 in an axial direction. Thus, the bypass valve is pressure activated. The wax in the actuator does not cause valve 22 or 71 to open or close. It merely moves pin 50 into contact with indicator button 35, so that in normal or hot flow conditions, a pressure increase at inlet 19 or 67 will cause the indicator button to extend and indicate a problem. Schaefer’s valve, therefore is a passive device as opposed to a control valve.

In the subject invention, the bypass flow is against the side of the plunger in a radial or transverse direction. This transverse flow does not cause the valve to open or close. Applicant’s

valve, therefore, is an active device or an actual control valve, as opposed to a passive device like Schaefer. Accordingly, the subject invention functions differently than the valve in Schaefer.

Applicant has amended claims 1 and 14 to distinguish over Schaefer by specifying that at least one of the plug walls has a transversely located inlet or outlet opening, and the plunger moves axially to block and unblock flow through this transversely located opening. Schaefer has a transversely located inlet or outlet opening, but flow is continuous through these openings. Applicant's claims 1-6, 14, 15 17 and 18 therefore are not anticipated by Schaefer. Support in the disclosure for the transversely located opening is in paragraph [0021], line 3, and for the axial movement of the plunger in paragraph [0024], line 4.

Applicant has also added the limitation to claim 1 that the valve housing has seal means for preventing flow out of the actuator portion. Support in the disclosure for this amendment is in paragraph [0022] in reference to O-ring seal 56.

In view of the above, this application is believed to be in condition for allowance, which is courteously requested.

Respectfully submitted,



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